5. Maintaining 1-Hr Ozone Attainment into the Future

"A Regional Commitment to Contingent Responses to address potential Attainment Problems"

Key Points:

- *Demonstrates projected Ozone 1-hour AQ Maintenance through 2012 based on the Projected 2007 and 2012 NOx and VOC redesignation inventories compared to the Approved Attainment Demonstration*
- *Demonstrates continued commitment to Wisconsin's Air Quality Program [Subpart 1] through the maintenance period reflecting particularly on the monitoring plan, control programs, permitting, inventory, SIP planning and program enforcement aspects*
- *Describes Lake Michigan region (IL/IN/WI) maintenance evaluation commitment(s) based on significant upward regional emission trends or violation and near-violation concentration trends during 2003-2005 and 2006-2008 or 2009-2012 respectively*
- *Describes Contingent Ozone Precursor Emission Control Plan including a list of potential contingent control measures for the post-2007 period*

Introduction to the Maintenance Plan

A major component of the Redesignation Request for 1-hour Ozone Attainment Status is a "Maintenance Plan" that ensures the areas redesignated will remain in attainment into the future. This chapter describes the multiple components of that Plan.

A Maintenance Plan does not guarantee that the air quality standards will not be violated, only that the emissions control programs that led to attainment level air quality remain effective. The Plan also has to ensure that projected emission inventories are consistent with projected attainment inventories. Finally, the Plan must show that the monitoring, enforcement, permitting and inventory reporting components will remain in place.

In addition, a Maintenance Plan needs to provide a planning structure and listing of contingent responses, including potential additional emission control measures that will be pursued if the region appears to be falling back into a potential 1-hour ozone violation setting. Illinois, Indiana and Wisconsin have worked together with EPA-Region 5 and LADCO to craft a single regional "Contingency Plan", which will become part of the individual Maintenance Plans, to address such conditions. That contingent response is built on a relatively rapid regional evaluation structure. An air quality trend suggesting that the region might violate the standard in the near-term would trigger an evaluation.

A Projecting 2007 and 2012 AQ Maintenance Consistent with the "2000 Attainment Demonstration for the Year 2007"

- *Synopsis of the Lake Michigan Attainment Demonstration*

- *SIP Linkage to the Lake Michigan Attainment Demonstration – Maintaining Program Integrity through 2007*
- *WI 2007 Projected Redesignation Inventory comparison to the Projected ROP Attainment Demonstration Inventory*

2007 Attainment Demonstration

Wisconsin and the rest of the Lake Michigan nonattainment areas in October 2001 received US-EPA's approval of their composite Lake Michigan Ozone Attainment Demonstration. That attainment demonstration results in 2007 "modeled attainment" based on the projected air quality resulting from specified emission reductions in VOC, NOx and CO across the region. The emission reductions are a consequence of adopted emission control programs at the state, region and national levels. The modeled air quality improvement is demonstrated for typical ozone episode meteorology crafted from field measurements and monitoring data collected during the 1990s.

Attainment is demonstrated under typical conditions sufficient to meet EPA's guidance for modeled attainment. EPA approved the three state's programs based on enforceable adopted programs and discrete commitments to evolving programs at the time (such as the regional NOx SIP call). Upon adoption, these programs became federally enforceable components of the states' standing ozone SIPs. Emission reduction components were crafted to address both VOC and regional NOx control. While earlier portions of the regional reduction effort focused on VOC control almost exclusively for the region, the attainment demonstration shifted much of the evolving reduction effort to NOx control in the post-2000 period. The effort will lower background concentrations of regional ozone while the VOC controls focused on lowering more local ozone formation and the short episode peak concentrations along the lake shore.

Appendix 5-1 – Synopsis of the Lake Michigan Attainment Demonstration provides a more complete description of the regional demonstration and Wisconsin's Rate-of-Progress components of that plan.

Attainment Demonstration Program Integrity through the Attainment Year - 2007

The "Maintenance Plans" for the 1-Hour Ozone Standard maintain the AQ integrity of the states' SIPs going into the future. Because recent SIP approvals were based on the premise of continued emission reductions through 2007, that year remains a key for assessing the program's integrity.

The 2007 Attainment Demonstration necessitated a significant and rapid control effort within the states. Had the states been able to demonstrate modeled attainment earlier than 2007 within the region, they would have been obligated to implement any reasonable and available programs to facilitate an early attainment objective. The Wisconsin SIP meets progress requirements through 2007 through ongoing emission reductions through 2007. IL and IN exceeded progress levels of reduction through 2007 because of regional NOx reduction requirements necessary to enable attainment in areas further downwind than the Lake Michigan region.

Because of the judicially-delayed large source NOx control program timelines associated with the NOx SIP calls, and because of elevated mobile sector emissions under MOBILE 5 compared to MOBILE 6 for the 2000-2007 time-frame, any potential for an earlier

showing of modeled attainment demonstration seems unfeasible. EPA in its 2001 approval recognized the need for at least the progress-based reductions through the attainment date. No regional modeling supporting revision to the demonstration has been scheduled or accomplished.

Some Wisconsin industrial stakeholders have suggested modification to the Attainment Demonstration SIP to remove some or all of the 2002-2007 NOx control components from the standing federally-approved SIP. The argument has been to retain the state regulations/standards to ensure the necessary regional emission reduction through 2007, but to rescind the federally-approved SIP elements to preclude federal enforceability.

Because of the recently approved and technically grounded modeled attainment demonstration for the Lake Michigan region, EPA has indicated that actions eliminating existing approved SIP components, or making them federally non-enforceable under the SIP, would spur disapproval of the state's entire attainment demonstration plan. This would preclude EPA from several considerations including acting favorably on a redesignation request for the area in question.

The expected consequence of EPA not being in a position to act favorably on a redesignation request from Wisconsin would be continuation of the current VOC new source review LAER technology requirement, the VOC offsets requirement and continued smaller major source definition for the current nonattainment areas of the state. Therefore, the maintenance plan retains all the existing SIP components and only the new source review and permitting components "automatically" trigger back to attainment area equivalents. The change occurs based on statutory language once notice of federal redesignation occurs in the federal register and the corresponding state redesignation of the area occurs.

A 10 Year Maintenance Plan – 2002-2012

An additional requirement of the maintenance plan is to show similar program and reductions integrity through 2012 (a ten year window) such that activity growth never results in increased emissions levels from the 2007 target through 2012. In 2010, presuming that the 1-hour ozone standard is still an active ambient air standard, the states are obligated to craft an additional ten year maintenance plan to address the period 2013-2022.

One outcome of the Maintenance Plan is the resetting of transportation conformity budgets for the maintenance period. Because of the 2007 attainment demonstration, that year's budget under the maintenance plan can not exceed the 2007 demonstration levels. In addition, the separate 2012 projection required under the plan sets a second set of budgets that become effective for 2012. These budgets for the 2007 and 2012 milestone years form the basis for both transportation improvement project assessment and the longer term regional transportation plans. Once noticed as adequate for conformity purposes, these budgets replace interim budgets set for the progress milestones of 2002 and 2005. These new budgets will get updated (potentially) within the 2010 maintenance plan extension (assuming the 1-hour standard remains in place). Transportation Conformity Budgets are addressed further in Chapter 6.

Projected Inventory Integrity – 2007 Redesignation Vs 2007 Modeled Attainment Demonstration

A relatively simple test for maintenance involves the assurance that the assumed control programs of the attainment demonstration remain in place through 2007. Differences in emissions resulting from changed assumptions need to be explained. The key issue is that the emission and activity assumptions in the Attainment SIP need to remain consistent with the assumptions used in the maintenance period because that level of control effort was demonstrated necessary to attain the standard.

Figures 5-1a and 5-1b compare the aggregate VOC and NOx emissions from the 2007 Redesignation Inventory and the 2007 Projected Rate-of-Progress Attainment Demonstration Inventory. For this comparison, an equivalently typical summer day inventory is used. In this case, the comparison involves the 8 county area used in the WI Attainment Demonstration SIP.

Although the allocation of emissions between the point and area categories varies, the aggregate inventories for the eight counties are very close. Because of continuously updating inventory estimation techniques, some differences are inevitable and do not reflect different control program assumptions or substantially different regional growth assumptions.

Projected 2007 emissions in the modeling demonstration do reflect some difference from the Projected ROP Inventory and the Projected Redesignation Inventory. ROP Inventories and Periodic Inventories were created using EPA guidance specific to these particular inventories. The modeling inventory, approved by EPA, was built to reflect actual emissions in the air. Regional data quality assessments comparing the level of modeled ambient precursors to monitored precursor levels show good agreement for the periods in the technical evaluations. Again, the differences between the various inventories do not reflect changes in emission reduction programs or in growth assumptions. ***Appendix 5-2 – Reconciliation of 2007 Inventories*** provides some more specific inventories comparison by sector for the Wisconsin areas.

A similar review effort on a regional 2007 comparison indicates a reasonably consistent projection for 2007 under the maintenance plan compared to the attainment demonstration. Some differences do exist for all three inventories of NOx and VOC. This in part includes the partial accounting for the impact of the newer MOBILE model[1]. For the mobile sector, Wisconsin's differences also included a larger adjustment for refined speed and fleet composition estimates. Future maintenance plan updates and future conformity budgets for the three areas will more completely address revised Mobile Sector emissions projections to reflect the changes to the MOBILE model going from version 5b to 6 along with enhanced transportation network information.

[1] *Much of this change is accounted for in the projections supporting the air quality modeling pursued for the Attainment Demonstration during 2000 and the projections built into these redesignation/maintenance inventories. MOBILE model changes are not expected to be significant to 1-hour ozone air quality maintenance at this point as the projected changes include lower emission projections for both VOC and NOx by the end of the maintenance period in 2012.*

Figures 5.1a and 5.1b

Figure 5.1a: Comparison of NOx Emissions in the 2007 Redesignation Emission Inventory and 2007 ROP Attainment Demonstration Emission Inventory for the 8-Counties in Tons per Ozone Season Day (tpd)

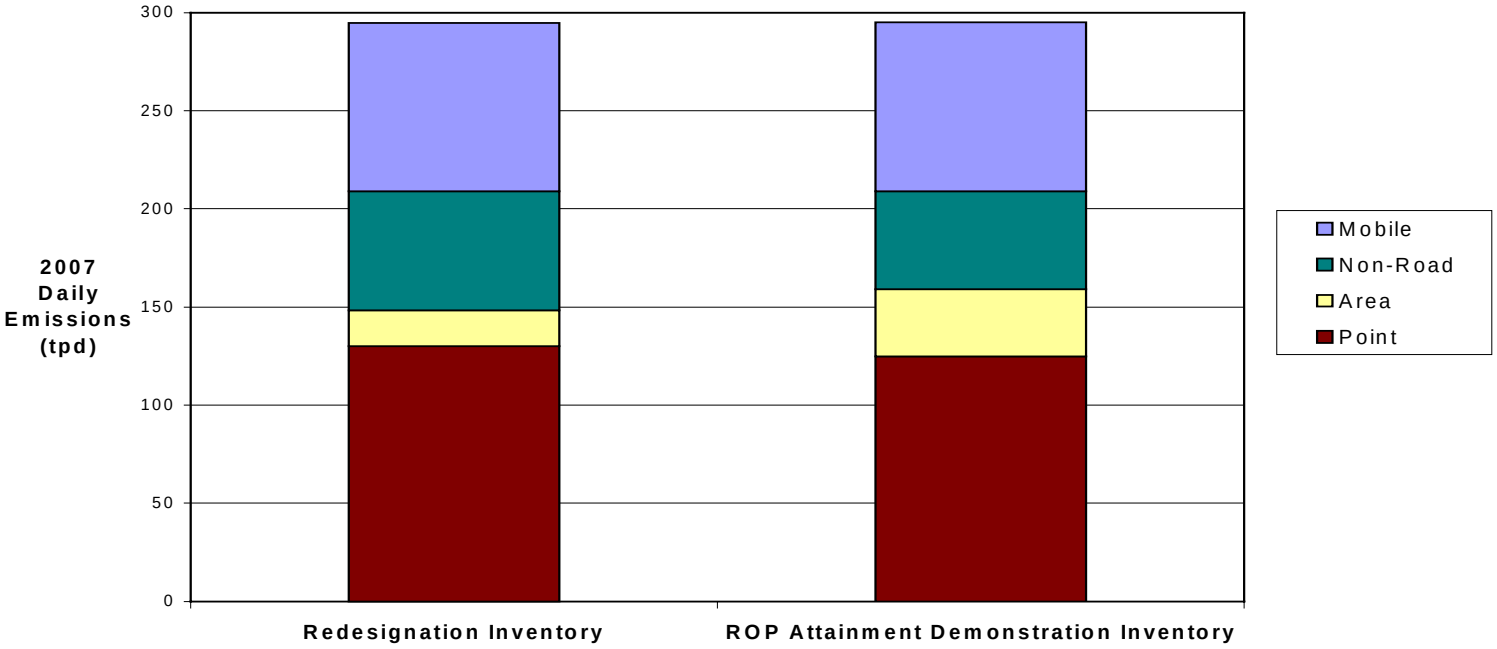
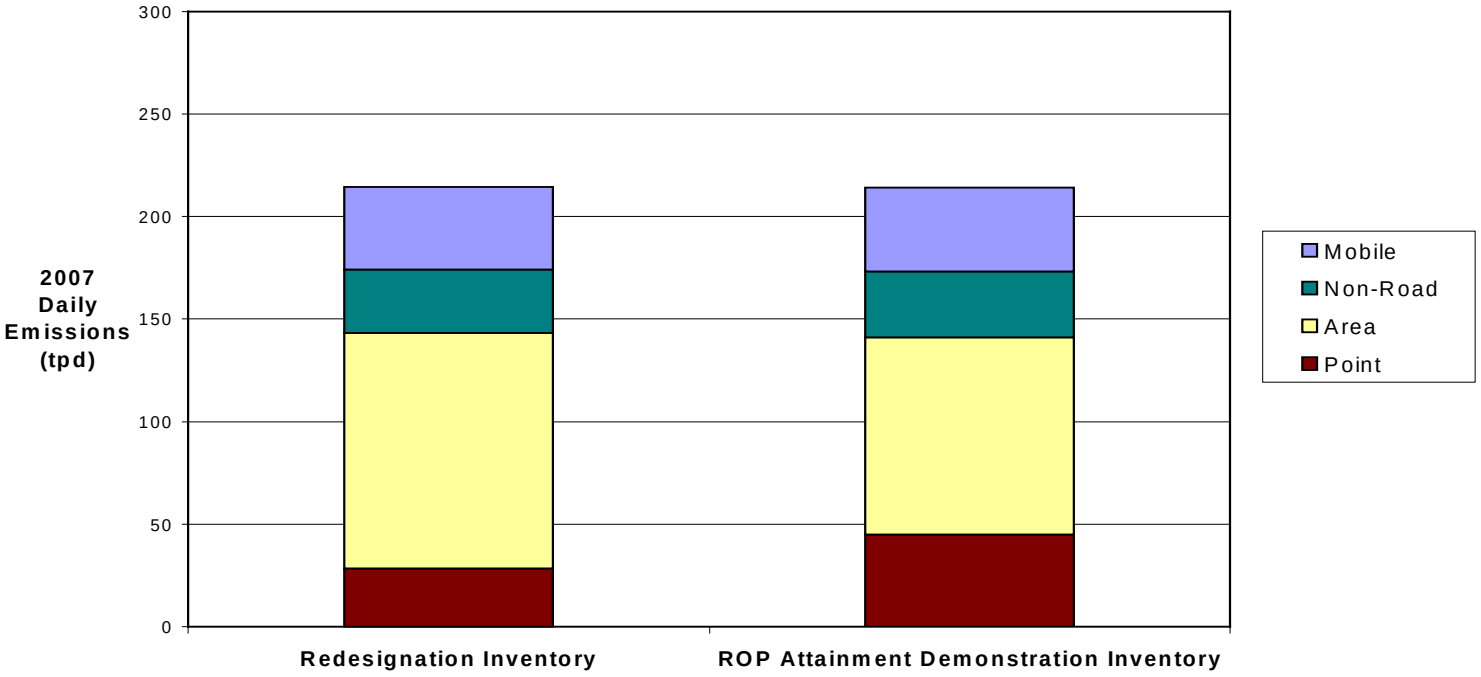


Figure 5.1b: Comparison of VOC Emissions in the 2007 Redesignation Emission Inventory and 2007 ROP Attainment Demonstration Emission Inventory for the 8-Counties in Tons per Ozone Season Day (tpd)



B Continued Ambient Air Quality Management Programs in Wisconsin and the Lake Michigan Region

Section 110 & Part D Air Quality Control Program
(Subpart 1 and earlier CAA Sections)

- *Approved WI Monitoring Program & Forward Commitments*
- *Approved WI Construction (New Source) and Operation Permit Programs*
- *Viable WI Inventory Reporting Structure*
- *WI SIP Planning & Development Capability, Rules and Authority*
- *Appropriate Conformity Structures*
- *General Enforcement Authorities*

In general, the state has met all significant planning obligations associated with its Section 110 and Part D obligations under the CAA. At this point in time Wisconsin retains its fully approved and fully delegated air quality management program from the federal government. EPA funds a significant portion of the program and retains annual oversight for the program through a formal
Partnership (EnPPA) arrangement.

With partial support from EPA, the Wisconsin DNR Air Quality Management Program maintains a comprehensive ambient air quality monitoring network and AQ reporting program, including adequately placed ozone monitoring sites around the state and a fully enhanced network in the vicinity of the Lake Michigan air shed. Wisconsin maintains a comprehensive point source permitting structure and collects emission fees through an annual point source inventory structure. These are structured in state statute to continue through and past the maintenance period.

Wisconsin's Air Quality Plan Development structure contains adequate state authorities for rule-making and includes an active enforcement/compliance oversight component. The state has developed and applied conformity assessment structures approved by EPA and FWHA for both transportation and general conformity and is structured to continue that effort through the maintenance period.

C A Regional Approach to Air Quality Maintenance

- *Overview of Basic Regional Maintenance Perspective – Backstop to 8-Hr efforts*
- *Description of the 2-Page Regional Maintenance Plan Commitment*
- *Regional Maintenance Plan – Summary Table*

Since the inception of the Lake Michigan Ozone Study (LMOS) in 1989 and the formation of the Lake Michigan Air Directors Consortium (LADCO), the states around the lake have actively pursued regional assessment of their severe ozone problem. From that time, resolution of the ozone violations and ozone formation conditions in the region have been pursued from a common perspective – building the components of attainment for the entire near-lake region.

The regional ozone effort slowly evolved into a Lake Michigan Ozone Control Program (LMOP) that crafted a formal modeling structure to assess various ozone control approaches for reaching attainment within the region. After two prior modeling iterations and extended participation during 1995-97 in the broader area Ozone Transport and Assessment Group, this regional evaluations ultimately resulted in 2000 in the Modeled Attainment Demonstration for the Year 2007. The states of IL, IN and WI used this as the basis for their Ozone Attainment Demonstration SIPs submitted later that year.

The emphasis for regional evaluations shifted during the later 1990s toward the broader attainment issues associated with regional transport along with the recently promulgated 8-hour standard for ozone and the fine particulate matter (PM-2.5) standards. Though an intensive effort focused on finishing the 1-hour attainment demonstrations, it was accomplished in the light of the expected future effort which focused on haze, PM-2.5 and 8-hour ozone. These pollutants form the basis of current effort and a newer organization – the Midwest Regional Planning Organization, a sister to LADCO including more state, tribal and federal land manager participants.

To address a contingent response component for the Maintenance Plan (for the 1-hour ozone standard), the three states determined that ozone emission trend evaluations could best be pursued within the existing regional air quality tracking and evaluation structures. Because of the need to continue attainment progress reductions through 2007, dialogue resulted in agreement over a basic contingent response that looked first at evaluating any violation or near- violation problems on a regional basis. If needed beyond 2007, the Maintenance Plan also includes listing of potential contingent control measures and some level of commitment to a specified time-frame for determining the need for these further reductions and the speed of their implementation.

The Basic Contingent Approach and Level of Contingent Commitment

The overall approach of the regional maintenance plan is to pursue rapid coordinated evaluation of the best mechanism to ensure maintenance if air monitoring suggests that might not continue based on either emissions increases or monitored AQ trends. Given the reality that progress controls continue through 2007 as part of the approved attainment demonstration, the period before 2007 does not include a commitment for implementation of *additional* control measures beyond the progress components already adopted.

The states in dialogue with EPA determined that three discreet periods exist within the maintenance plan. During the early period, there is a presumption that the region may occasionally see residual exceedances of the 1-hour standard…perhaps even reaching a violation (4 exceedances in three years at one site). Therefore, between 2002 and 2004 no real response is expected or committed because major “new” controls still come into effect between 2003 and 2004. By 2005-2007, exceedances should be even rarer given the lower aggregate regional emissions resulting from the NOx SIPs and from new federal on-road vehicle and off-road engine standards. By 2008-2012 the area is projected to meet modeled attainment, all programs are fully implemented and additional exceedances are no longer expected. Hence, the scope and speed of commitment and contingent measure identification becomes much greater the later any elevated ozone problems arise during the maintenance period.

The states used a basic matrix to capture the working regional agreement on a contingent response that is portrayed in **Table 5-1**.

Table 5-1

REDESIGNATION OF LAKE MICHIGAN COUNTIES TO ATTAINMENT OF THE 1-HOUR NATIONAL AMBIENT AIR QUALITY STANDARD FOR OZONE

CONTINGENCY MEASURES PLAN

Yr	**Contingency Measure Trigger**	**Action to beTaken**	**Measures Currently Scheduled for Implementation During this Timeframe**
2003 - 2004	Exceedance or violation occurs anywhere within the maintenance area.	IL, IN and WI shall continue to implement their Attainment Demonstration and Rate of Progress Plans.	• NOx SIP Call (IL & IN) • Federal Nonroad Engine Standards • BP Amoco Agreed Order (IN) • WI NOx-specific measures
2005 - 2007	***Level 1 Trigger*** • Monitored ambient levels of ozone exceeding 124 ppb more than once per year at any monitoring station in the Lake Michigan states' maintenance area, or more than two exceedances in any two or three year period.	IL, IN and WI shall continue to implement their Attainment Demonstration and Rate of Progress Plans. The states will also work cooperatively, with LADCO, on a study to ensure that scheduled federal and state control measures will reduce regional emissions of NOx and VOCs through the 2012 maintenance year. The study shall be conducted within 9 months. If it is determined that scheduled emission decreases are not sufficient for maintenance of the standard, the states will revise their maintenance plans, as appropriate, within 24 months.	• Tier 2 Vehicle Standards and Low Sulfur Fuel • Heavy Duty Diesel Standards and Low Sulfur Diesel Fuel • NOx SIP Call Phase II (IN & IL only) • VOL Storage RACT (IN) • Continued WI-specific NOx measures

Continued on next page.

<table>
<tr><th>Year</th><th>Contingency Measure Trigger</th><th>Action to beTaken</th><th>Potential Contingency Measures[2]</th></tr>
<tr><td rowspan="2">2008 – 2012</td><td>Level 1 Trigger
Monitored ambient levels of ozone exceeding 124 ppb more than once per year at any monitoring station in the Lake Michigan states' maintenance area, or more than two exceedances in any two or three year period.
The Lake Michigan Nonattainment Area's NOx or VOC emissions inventories for 2005 or 2008 increase more than 5% above the levels included in the 1999 emissions inventories.</td><td>IL, IN and WI shall work cooperatively, with LADCO, to assess the exceedance or determine if emissions trends are likely to continue. If so, evaluate what and where controls may be required, as well as level of emissions reductions needed, to avoid a violation of the standard. The study shall be completed within 9 months. If deemed necessary based on the evaluation, control measures shall be adopted within 18 months of that determination.</td><td rowspan="2">Point Source Measures
Reinstate requirements for Offsets and/or LAER
Apply RACT to smaller existing sources
Tighten RACT for existing sources covered by US EPA CTGs.
Expanded geographic coverage of current point source measures
NOx controls
Other measures to be identified
Mobile Source Measures
TCMs, including, but not limited to, area-wide rideshare programs, telecommuting, transit improvements, and traffic flow improvements.
High-enhanced I/M (OBDII)
California Engine Standards
Other measures to be identified
Area Source Measures
California AIM
California Commercial and Consumer Products
Broader geographic applicability of existing measures
California Off-road Engine Standards
Other measures to be identified</td></tr>
<tr><td>Level 2 Trigger
A violation of the standard[1].</td><td>In cooperation, IL, IN, and WI shall conduct a thorough analysis to determine appropriate measures to address the cause of the violation. Analysis shall be completed within 6 months. Selected measures shall be adopted within 18 months and implemented as expeditiously as practicable, taking into consideration the ease of implementation and the technical and economic feasibility of selected measures.</td></tr>
</table>

1 The occurrence of a Level II trigger, or violation of the standard, will be determined at the end of the ozone season after the monitoring data have been quality assured.

2 Because it is not possible for the LADCO states to determine what control measure(s) will be adequate at an unspecified time in the future, the contingency measures listed above is a sample of available possible measures. The feasibility assessment and selection of potential measures will be based upon cost-effectiveness, emission reduction potential, economic and social considerations or other factors that IL, IN, WI and public stakeholders deem appropriate.

ELEMENTS TO BE INCLUDED IN REGIONAL ANALYSIS

In the event of an exceedance within the Lake Michigan Maintenance Area, Illinois, Indiana and Wisconsin, in cooperation with LADCO, will conduct an analysis that examines:

- the number, location and severity of the exceedance
- the weather patterns contributing to the exceedance
- potential source emissions contributing to the exceedance
- the geographic application of possible contingency measures
- emissions trends analysis
- current and/or newly identified emission control technologies
- influences outside of the maintenance area
- cost effectiveness, feasibility and timing of implementing identified potential contingency measures and/or newly identified contingency measures.

ANALYSIS PROCESS:

1. **Regional Boundary.** The counties referred to as the Lake Michigan Maintenance Area consists of the Indiana, Illinois and Wisconsin counties identified below.
2. **Regionality**. In the event of increased emissions or monitored ozone levels anywhere within the maintenance area, a regional analysis will be conducted. A regional process would be developed and agreed to by IL, IN and WI.
3. **Public Participation**. Public involvement process in evaluations and selecting additional measures to be conducted by and within each of the LADCO states.

Definition of the Lake Michigan 1-Hour Ozone Maintenance Area

Illinois Counties	Indiana Counties	Wisconsin Counties
Cook Du Page Grundy (Aux Sable and Goose Lake townships) Kane Kendall (Oswego Township) Lake McHenry Will	Lake Porter	Door Kenosha Kewaunee Manitowoc Milwaukee Ozaukee Racine Sheboygan Washington Waukesha

D – Discussion of the Potential Contingent Emission Control Measures

- *Summary Description - Contingent Measures*
- *Criteria likely to influence contingent measure priority/selection*
- *Public involvement in the contingent measure selection process (see Chp 7)*

The regional dialogue on a contingent response process included discussion of measures that all three states felt could result in incremental added emission reductions to address a demonstrated maintenance need. The states felt that commitment to a single measure or a small set of measures, this early in the maintenance period, was inappropriate.

The most optimum contingent controls strategy will depend on future ozone conditions regarding air chemistry, regional economics and the demonstrated effectiveness of control technologies still coming into effect in the region. In addition, future evaluations may point toward a focus on either VOC or NOx control, and may indicate the benefit of a more intensive local approach or, more likely, a broader regional effort to address peak ambient ozone. Finally, any contingent measure will come into existence in the light of SIPs formulated by the three states to address 8-hour ozone, PM-2.5 and regional haze. In all likelihood, any contingent control requirement triggered by violation of the 1-hour standard within the Lake Michigan region will already by proposed for inclusion within the 8-hour ozone SIPs. These are expected to be due by 2007 or 2008 pending any litigation of a final federal implementation guidance rule.

Regional Contingent Measures - 2003 through 2004

During this early period there are no added contingency measures. There will be significant, ongoing emission reductions in the Lake Michigan nonattainment areas and in areas upwind of the nonattainment areas over the period. These measures include the NOx SIPs, Federal Motor Vehicle Regulations, Indiana's Refinery Agreement with BP, and the Wisconsin NOx reductions from the Wisconsin Attainment SIP.

The emission reductions from these measures were included in the Attainment SIPs submitted by Wisconsin and the Attainment SIPs and NOx SIPs submitted by the other Lake Michigan States.

Regional Contingent Measures - 2005 through 2007

Several discrete emission reduction measures are in place that will continue to contribute to emission reductions that affect ozone formation in the nonattainment areas. These already adopted or strongly committed measures include:

POINT

- Enhanced VOC (VOL) storage RACT in Indiana.
- NOx SIP call – Phase 2 Final Reductions (IL and IN)

MOBILE

- Federal Tier 2 Motor Vehicle Standards and Low Sulfur Gasoline
- Heavy Duty Diesel Standard and Low Sulfur Diesel Fuel
- Continued NOx I/M

AREA/NONROAD

- Federal Tier 2 and 3 Engine Standards

The emission reductions from these measures were included in the Attainment SIPs submitted by Wisconsin and the Attainment SIPs and NOx SIPs submitted by the other Lake Michigan States.

Regional Contingent Measures - 2008 through 2012

Wisconsin, along with the other Lake Michigan States, has identified the following emission reduction programs for consideration as contingency measures should they be needed to continue to maintain the 1-hour NAAQS for ozone. The list is specifically nonexhaustive. Adoption of any contingency measure would be done after a determination of need and a thorough analysis of the emission reduction potential of measures and an assessment of their efficacy in the later years of the maintenance plan. Past evaluations of emission control measures have examined potential emission reductions, cost effectiveness, timeliness of emission controls, and public acceptability.

Rule making typically takes one year for rule development and promulgation. Another year is typically allowed for affected sources to come into compliance. For some measures, turnover of existing emissions sources (vehicles or engines) may require many years to observe final emission reduction potential.

The regional contingent response for the level 2 (violation) trigger commits the three states to adoption of one or more contingent measures within 18 months of determining the most appropriate emission reduction approach to regain attainment air quality. The evaluation to support that determination would be completed within 6 months of the close of an ozone season containing a quality-assured monitored violation. The states commit to as short an implementation time-frame as would be appropriate based on the type of control adopted. As noted for Wisconsin, this is usually a one year period.

Potential regionally identified (and state-identified) contingency measures include:

POINT

- **Reinstate Offsets and/or LAER requirements for new source review for VOC sources**.

LAER emission control technology, combined with permanent VOC offsets, contributed to the significant reduction in VOC emissions from point sources in Wisconsin. Point sources are expected to grow at a higher rate without offsets and with BACT technology instead of LAER. Requiring offsets and LAER has the potential to reduce VOC emission growth. Some VOC emission reduction from this program is likely. A one year rule drafting and promulgation is required. While the difference between a BACT and LAER level of review might take some years to show significant effect, the application of emission offset requirements achieves significant emission control from new major source installation.

- **RACT on smaller VOC sources**.

RACT emission control technology is currently applied only to major sources. For many RACT categories, there are few potential emission reductions to be achieved by lowering the threshold for applicability. For some specific RACT categories there are many small sources and the aggregate emission reduction potential may be large enough to warrant rule revisions. Some VOC emission reductions from this program are likely. A one-year rule drafting and promulgation process for is required for each source category that is

changed. Another year would be expected for sources to comply with tighter emission limits.

- **Tighten existing VOC RACT limits**.

Many RACT rules are more than 10 years old. A thorough analysis of the existing rules is likely to reveal cost effective emission reductions. Significant VOC emission reductions are possible and likely. This would require a one-year year rule drafting and promulgation process for each source category that is changed. Another year would be expected for sources to comply with tighter emission limits.

- **Expanded geography for existing RACT controls**.

Most of the Wisconsin RACT rules, especially those adopted after 1992, cover the nonattainment counties designated after the passage of the CAA-90. Expanding the coverage of these rules to a broader geographic coverage would reduce VOC emissions that likely contribute in part to elevated ozone levels in the nonattainment counties. A thorough analysis of the emission reduction potential and a rigorous photochemical modeling analysis to determine ozone-forming culpability would need to be completed. Significant VOC emission reductions from the program are likely. This would require a one-year year rule drafting and promulgation process for each source category that is changed. Another year would be expected for sources to comply with tighter emission limits.

- **Other measures to be identified**.

Given the long lead-time between redesignation and possible implementation of contingency measures, the Department recognizes the need to search for other potential contingency measures as part of any needed future analysis.

MOBILE

- **High-Enhanced Inspection and Maintenance.**

Wisconsin's motor vehicle inspection and maintenance program meets the EPA requirements for low enhanced I/M programs. Additional emission reductions could be achieved by increasing the frequency of testing, by tightening cut points for some or all pollutants, or by other administrative changes. In the later years of the maintenance plan, other inspection and maintenance alternatives may exist that could be used to achieve additional emission reductions. Both VOC and NOx emission reductions are likely from this program. A one-year year rule drafting and promulgation process would be needed. It would likely take one or two years for all vehicles to be tested with tighter emission cutpoints.

- **California motor vehicle emissions standards**.

California is expected to adopt stricter emission limits beyond the California Tier 2 standards. To achieve the full emissions benefits of future California motor vehicle standards, states adopting those standards may need to adopt California fuel standards as well. Motor vehicle emission standards achieve emission reductions over time as the fleet turns over. A new fuel standard may achieve emission reductions immediately if the new fuel has a positive effect on emission reduction equipment in the existing fleet. The CAA-90 requires a two-year notification prior to adoption of California motor vehicle standards. Significant VOC and NOx emission reductions are likely from the program. A one-year rule drafting and promulgation process would be necessary. A two-year notification process is required in the CAA-90. It takes several years until significant fleet turnover begins to yield full emission reduction benefits. Statutory changes may be required to permit other state agencies to enforce the program through registration denial.

- **Transportation Control Measures/Transportation Demand Management (TCM/TDM)**.

The Department is now conducting a multiple agency review of TCM/TDM programs that have the potential to achieve multiple environmental benefits, including reduced emissions that contribute to ozone formation. The Department will use this review and other pertinent information as part of an analysis of TCM/TDM programs. Both VOC and NOx emission reductions are likely. A one-year year rule drafting and promulgation process. Some TCMs may require several years before full emission reduction potential is achieved.

- **Other measures to be identified**.

Given the long lead-time between redesignation and possible implementation of contingency measures, the Department recognizes the need to search for other potential contingency measures as part of any needed future analysis.

NONROAD

- **California nonroad engine and/or nonroad vehicle standards**.

California has specific authority to establish emission standards for nonroad engines and nonroad vehicles. Other states may adopt these standards provided they give a two-year notice of adoption. Future California standards may require adopting a California nonroad fuel standard to achieve full emission reduction benefits. Very significant VOC and NOx emission reductions are likely from this program. A one-year rule drafting and promulgation process would be needed. A two-year notification process is required in the CAA-90. It takes several years until significant fleet turnover begins to yield full emission reduction benefits.

- **Other measures to be identified**.

Given the long lead-time between redesignation and possible implementation of contingency measures, the Department recognizes the need to search for other potential contingency measures as part of any needed future analysis.

AREA

- **California AIM Coating standards**

California has much lower VOC limits on paints and other coatings than most other states' RACT requirements or the Federal AIM Rule. Significant VOC emission reductions are likely from this program. A one-year rule drafting and promulgation process would be needed for selected source categories. Another year would be needed for manufacturers, distributors and other suppliers to provide products with tighter emission limits.

- **California Commercial and Consumer Products solvent limits**.

California has much lower VOC limits on consumer and commercial products than most other states' RACT requirements of the Federal Control Technique Guidelines CTGs for these categories. Significant VOC emission reductions are likely from this program. A one-year rule drafting and promulgation process would be required for selected source categories. Another year would be needed for manufacturers, distributors and other suppliers to provide products with tighter emission limits.

- **Expanded geography for existing area source VOC controls**.

Most of the Wisconsin area source VOC rules, such as Stage 2 vapor recovery, only cover the nonattainment counties designated after the passage of the CAA-90. Expanding the coverage of these rules to a broader geographic coverage would reduce VOC emissions that likely contribute in part to elevated ozone levels in the nonattainment counties. A thorough analysis of the emission reduction potential and a rigorous photochemical

modeling analysis to determine ozone-forming culpability would need to be completed. Significant VOC emission reductions from the program are likely. This would require a one-year year rule drafting and promulgation process for each source category that is changed. Another year would be expected for sources to comply with tighter emission limits.

- **Other measures to be identified**.

Given the long lead-time between redesignation and possible implementation of contingency measures, the Department recognizes the need to search for other potential contingency measures as part of any needed future analysis.

Likely Criteria for Contingent Measure Selection

As described in the following Public Outreach section *(Chapter 7),* Wisconsin pursues a focused stakeholder outreach process during the development of major Ozone Plan revisions and new control program development. This maintenance plan encompasses a commitment to pursue additional controls upon either a "new" violation of the 1-hour standard post-2007 or if indicated necessary to ensure regional maintenance in the future.

Because of the uncertainty of where, when and how extensive new controls would be required, it is not possible to fully outline in advance the evaluation process for control selection. However, some core air quality management criteria will certainly guide any necessary selection.

Typical control measures are evaluated and compared using criteria such as cost-of-control, potential control impact, control impact cost-effectiveness, speed of impacts, sensitivity to other public policy efforts and initiatives, inter-sector equity (mobile sector Vs industry Vs general/commercial population) and any potential co-benefits or counter-benefits.

Wisconsin in its commitment to pursue contingent measures has identified those for which core authorities already exist and which could be adopted through a time-limited regulatory process. Part of that process includes the identification of fiscal impacts, regulated party impacts and expected emission reduction benefit.